



U.S. Department
of Transportation
**Federal Aviation
Administration**

Advisory Circular

Subject: **PREVENTIVE MAINTENANCE**

Date: 10/28/83

Initiated by: AWS-340

AC No: 43012A

Change:

1. **PURPOSE.** This advisory circular (AC) provides information concerning preventive maintenance, who may perform it, the standards of performance applicable to it, authority for approving aircraft for return to service, and the applicable recording requirements. This AC also clarifies those areas most frequently misunderstood in the past, and explains the recent changes in the rules concerning preventive maintenance.

2. **CANCELLATION.** AC 43-12, Preventive Maintenance, dated July 16, 1976, is canceled.

3. **RELATED FEDERAL AVIATION REGULATIONS (FAR).** Part 1, Definitions and Abbreviations; Section 1.1; Part 43, Maintenance, Preventive Maintenance, Rebuilding, and Alteration; Part 61, Certification: Pilots and Flight Instructors; and Part 145, Repair Stations.

4. **PREVENTIVE MAINTENANCE.**

a. The holders of mechanic and repairman certificates, persons working under the supervision of these mechanics and repairmen, repair stations certificated under Part 145, and air carriers certificated under Parts 121, 127, and 135, are authorized to perform preventive maintenance. These persons are also authorized to perform other maintenance. Therefore, it is of little consequence to them how a particular function is classified, since they are authorized to perform the function as either preventive maintenance or as other maintenance. Further, the procedures used in approving for return to service and recording are identical. This AC will, therefore, consider preventive maintenance from the owners/operators point of view.

b. FAR Part 1, Section 1.1, defines preventive maintenance as "... simple or minor preservation operations and the replacement of small standard parts not involving complex assembly operations."

(1) FAR Part 43, Appendix A, paragraph (c) contains the list of those functions determined by the FAA to meet this definition. If a function does not appear in this list, it is not preventive maintenance. Further, because of differences in aircraft, a function may be preventive maintenance on one aircraft and not on another. To provide for this, paragraph (c) contains the limitation, "provided it does not involve complex assembly operations" on the aircraft involved. Owners and pilots must use good judgment in determining that a specific function may appropriately be classified as preventive maintenance.

(2) A Pilot may not perform preventive maintenance ~~on~~ aircraft used under Parts ~~121, 127, or 135~~, even when the pilot ~~owns~~ the aircraft.

c. Persons authorized to perform preventive maintenance. In addition to those persons listed in paragraph 4a of this AC, Section 43.3(g) authorizes the holder of a pilot ~~certificate~~ issued under Part 61 to perform preventive maintenance. Section 43.7 limits the privilege to persons holding at least a private pilot ~~certificate~~ and Section 43.5 prohibits operation of the aircraft unless approved for return to service. Further, pilots ~~may~~ only approve for return to service preventive maintenance which they ~~themselves~~ have accomplished.

d. Applicable Performance standards.

(1) FAR 43.13 requires preventive maintenance to be done using methods, techniques, and practices acceptable to the Administrator. These are normally set forth in the manufacturer's ~~maintenance manuals~~; however, ~~some~~ may be found in AC's published by the FAA.

(2) FAR 43.13 requires the use of the tools, equipment, and test apparatus necessary to assure ~~completion~~ of the work in accordance with accepted industry practices. This ~~means~~ that the proper tools and test apparatus ~~must be used~~. Normally these are listed as part of any FAA-approved manufacturer's maintenance literature.

(3) FAR 43.13 also requires that any special equipment ~~recommended~~ by the manufacturer or its ~~equivalent~~ ~~must~~ be used in a manner acceptable to the Administrator. This provision is ~~more~~ directly applicable to ~~maintenance~~ than preventive maintenance. However, it may ~~come~~ into play. Therefore, ~~owners~~ and pilots should be aware of it.

(4) Additionally, Section 43.13 requires that the work ~~performed~~ and the ~~materials~~ used are to be such as to ensure that, when the work is finished, the ~~item~~ worked on is at least equal to its original condition. Caution ~~must~~ be exercised because ~~some~~ functions which appear to be simple tasks may, in fact, be quite ~~complicated~~. Care should be taken to ensure that the manufacturer's ~~instructions~~ are understood, the function is within the individual's capability, within the definition of preventive maintenance, and that it is listed in paragraph (c) of Appendix A of Part 43.

e. Recording preventive maintenance. Preventive maintenance ~~must be~~ recorded in accordance with Section 43.9 of FAR Part 43. This is done by entering in the ~~maintenance record~~, of the item worked on, the following:

(1) "A description (or reference to data acceptable to the Administrator) of the work ~~performed~~." This ~~should~~ indicate what was done ~~and how~~ it was done. This is normally quite simple for preventive maintenance; however, if the description is extensive, reference to ~~documents~~ containing that description is acceptable. ~~These may be manufacturer's~~

manuals, **AC's**, or other **documents** or references containing data acceptable to the **Administrator**. If documents other than types which are in **common** use are referenced, the **document** should be made a part of the **maintenance** record, as required by Section **43.9(a)(1)**.

(2) "The date of **completion** of the work **performed**," This is self explanatory and is the date on which the entry is made, as required by Section **43.9(a)(2)**.

(3) The kind of airman **certificate** exercised. ~~When~~ preventive maintenance is performed as authorized in Section **43.3(g)**, the **certificate** may be indicated in any manner which would be clear to the reader. For example: **PP**, **CP**, or **ATP** might be used to **indicate** private, **commercial**, or airline transport pilot, respectively. The **certificate** number is that **number** displayed on the certificate being exercised. Affixing a **signature** to the entry, which describes the work **accomplished**, constitutes approval for return to service, as required by Section **43.9(a)(4)**.

NOTE: Since ~~owners/pilots~~ are not authorized to approve work **accomplished** by others, Section **43.9(a)(3)** is not applicable when preventive **maintenance** is **performed** by the holder of a pilot's certificate. The holder of the pilot's certificate doing the work is the only **person** who can sign the approval for return to service.

f The changes to Section **43.9** which require preventive maintenance to be recorded became effective October 15, 1982 (~~Amendment 43-23~~, 47 FR 41076; September 16, 1982). On this same date, the list of items **considered** to be preventive maintenance in Appendix A of Part **43** was expanded. Two of the items warrant discussion.

(1) Item 25 (Part **43**, Appendix A, paragraph **(c)**). This item **deals** with the **assembly** of **gliders** and has been on the list of preventive maintenance for some time. ~~The new~~ recording requirements, however, significantly affects this item. The recording requirements are intended to provide continuity in the **maintenance** record and to ensure that the person performing preventive maintenance **assumes** responsibility for the work performed. An entry for the assembly after required inspection ensures this assumption of responsibility. Repeated entries are required each **time** a person assembles the aircraft for operation. The assembly **must be** recorded and the aircraft approved for **return** to service in accordance with Section **43.9** by a person authorized in Section **43.7**.

(2) Item 28 (Part **43**, Appendix A, paragraph **(c)**). This item deals with the installation of balloon baskets and burners specifically designed for quick **removal** and installation. Such **disassembly** and assembly is **necessary** to facilitate transporting the balloon either to the launch site or after a flight is terminated. The assembly operation is preventive **maintenance** and subject to the provisions of Sections **43.3**, **43.7**, and **43.9**. As required by Section **43.1(b)**, entries are required for assembly operations on all balloons except those certificated in the experimental category which have not been previously certificated in another category.

g. Items 6 and 23 (Part 43, Appendix A, paragraph (c)). These items permit the draining and reservicing of oil, and the removal, cleaning and reinstallation of oil screens, filters, and strainers in an aircraft oil system to be done as preventive maintenance, and are subject to the provisions of Sections 43.13(a) and (b).



Joseph A. Pontecorvo
Acting Director of Airworthiness